

## Pedestrian and Bicycle Information Center

resources for changing communities

www.pedbikeinfo.com

Part of the University of North Carolina Highway Safety Research Center

## Mission

The mission of the Pedestrian and Bicycle Information Center is to improve the quality of life in communities through the increase of safe walking and bicycling as means of transportation and physical activity.

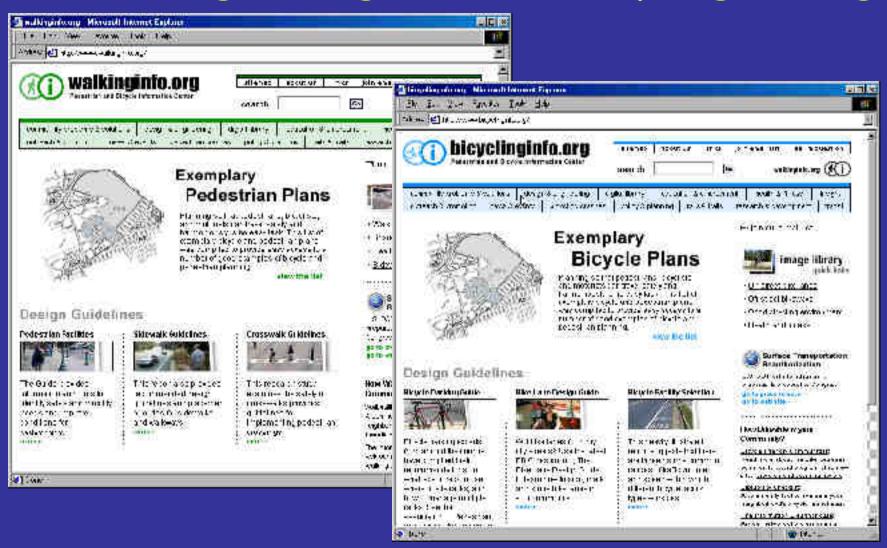
- 1. Information Clearinghouse
- 2. Pedestrian and Bicycle Research
- 3. Technology Transfer
- 4. Marketing and Promotion





### www.walkinginfo.org

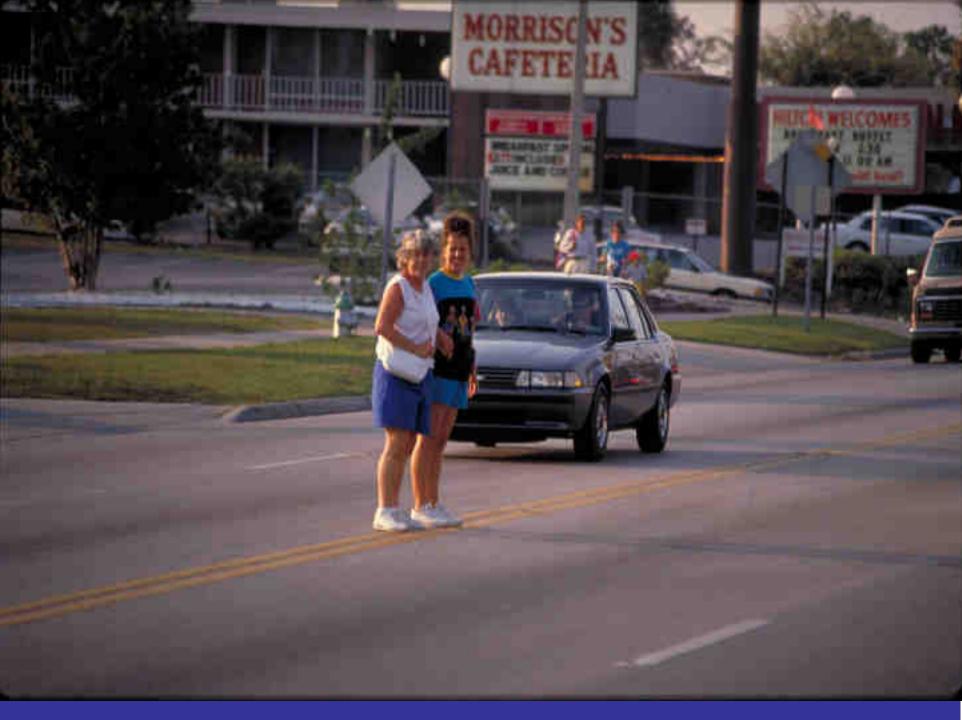
### www.bicyclinginfo.org

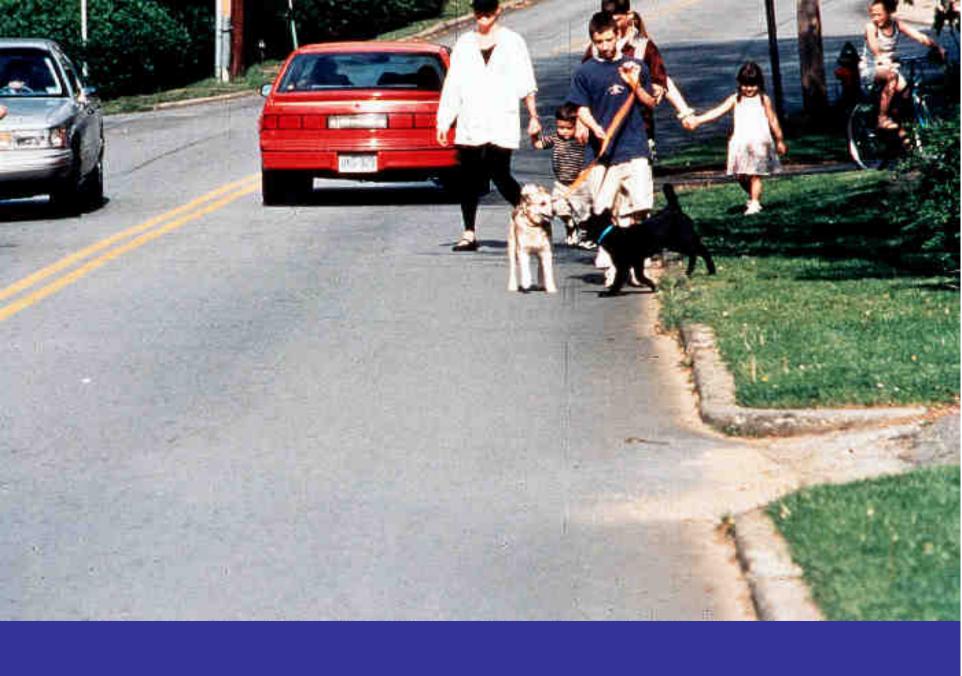






Pedestrians have a right to facilities where they can cross the road safely and without unreasonable delay



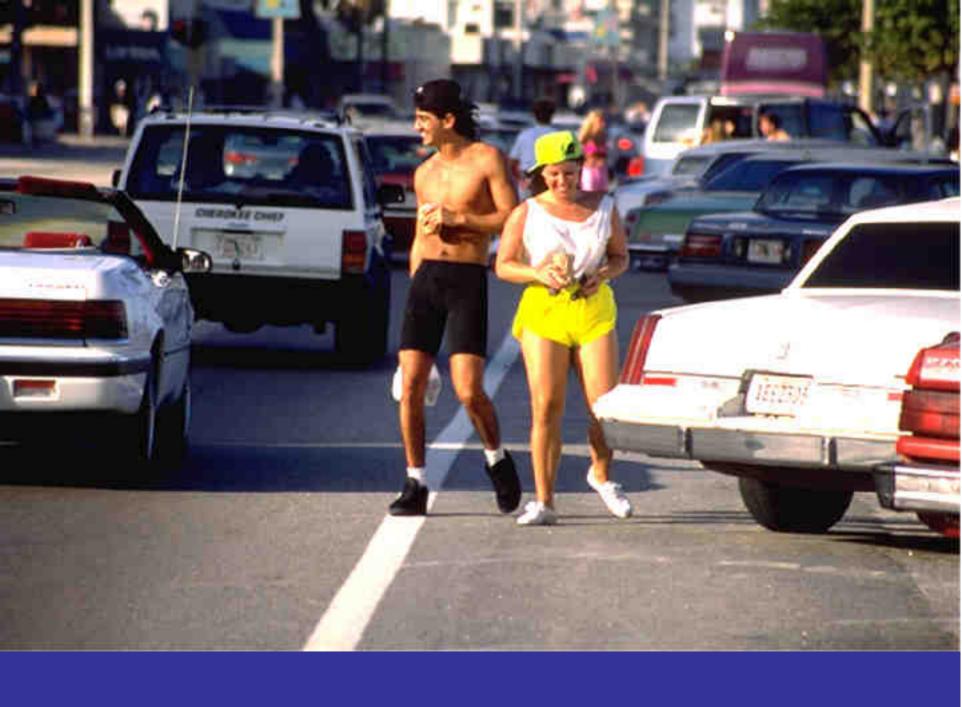














# TRAFFIC CALMING

### **FATALITIES BY SPEED**

**Percent fatal to Pedestrians** 



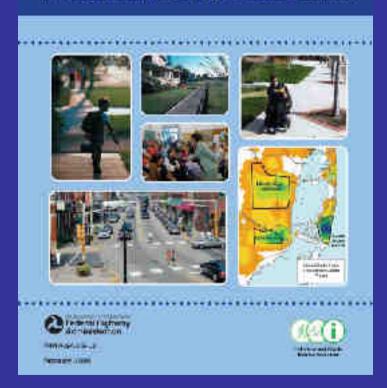
There is compelling evidence that speeds inside

should not exceed 30 KPH (20 mph)



# "How to Develop a Pedestrian Safety Action Plan" Guide

How to Develop a
Pedestrian Safety Action Plan



 Final Document Complete and posted on: www.walkinginfo.org

# Pedestrian Safety Training Currently Being Taught in:

Arizona

New York

New Jersey

Florida

California

Michigan

Illinois

New Mexico

Georgia

Pennsylvania

North Carolina

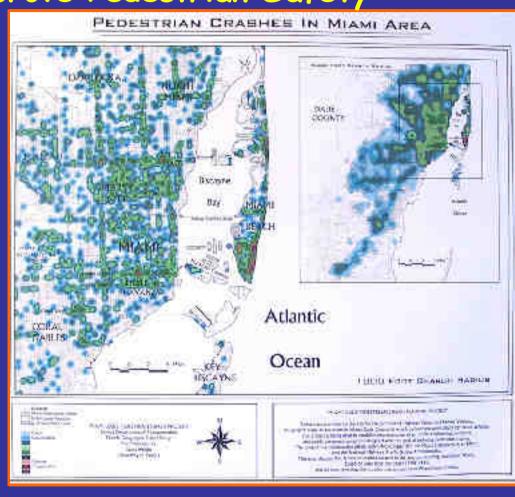
Texas

Hawaii

# Ongoing Research Miami-Dade County

Using GIS to Improve Pedestrian Safety





Objective 1 - Reduce Vehicle Speed

- > Implement Road Narrowing Measures
- Install Traffic Calming Road Sections
- > Install Traffic Calming Intersection
- > Provide School Route Improvements







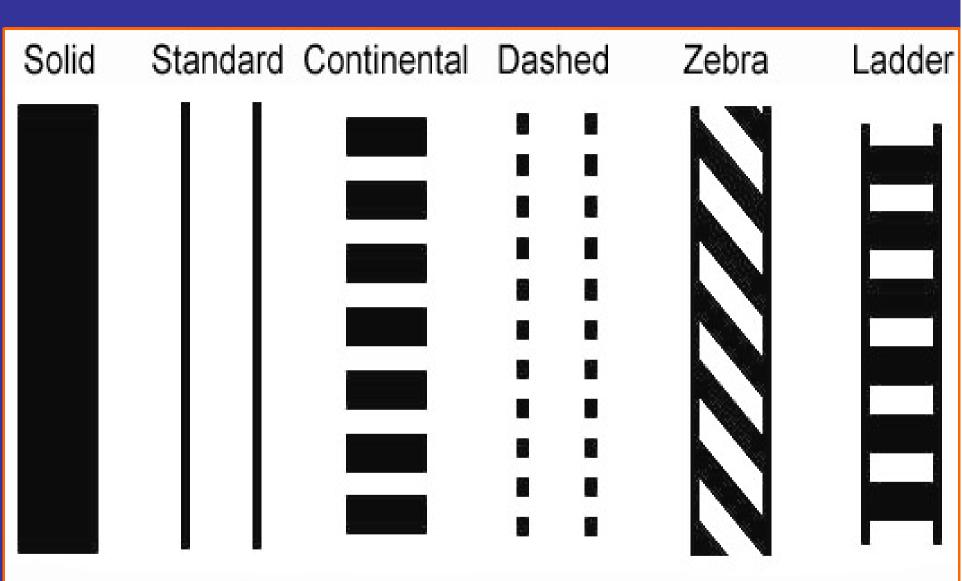


Objective 2 - Improve Sight Distance and/or Visibility Between Motor Vehicles & Pedestrians

Implement Lighting/Crosswalk Illumination
Measures

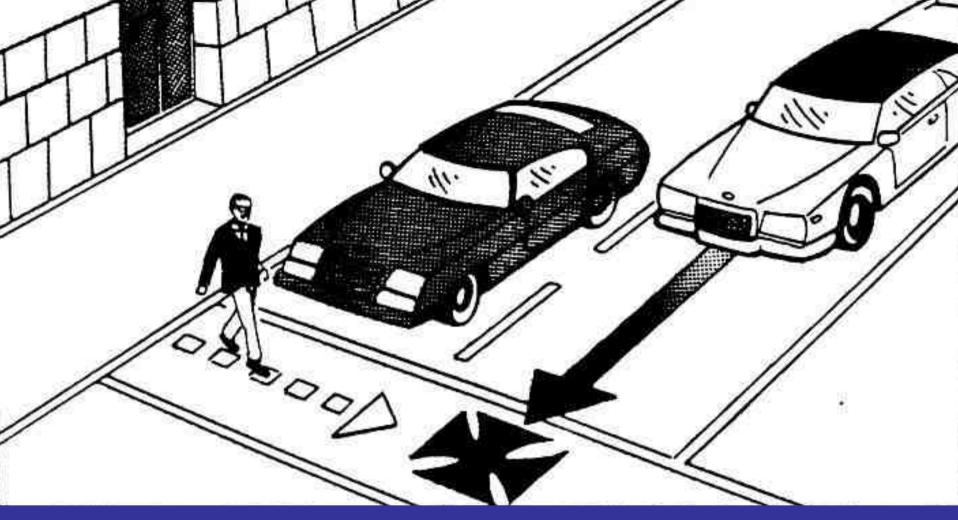
- Provide Crosswalk Enhancements
- >Improve Reflectorization/Conspicuity of

Pedestrians



Examples of different crosswalk marking patterns

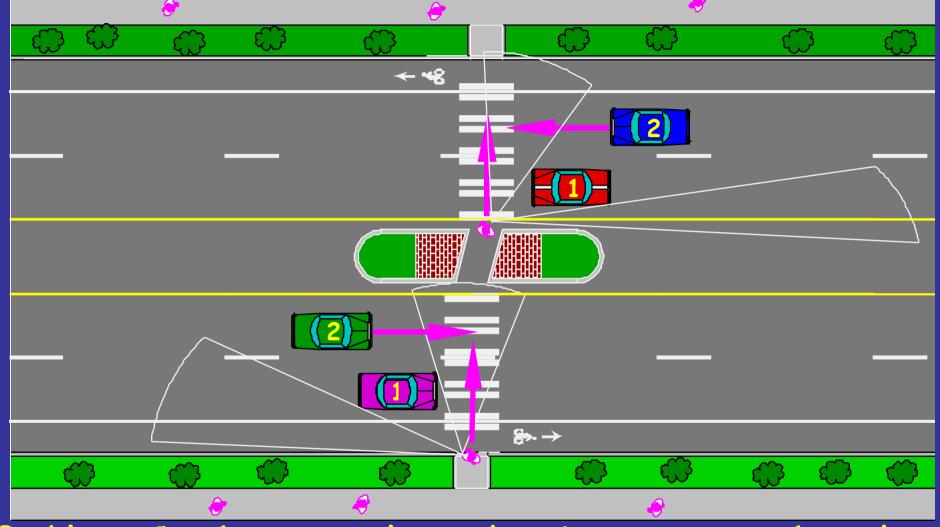




First car stops for pedestrian, but too close, masking visibility for driver in 2<sup>nd</sup> lane

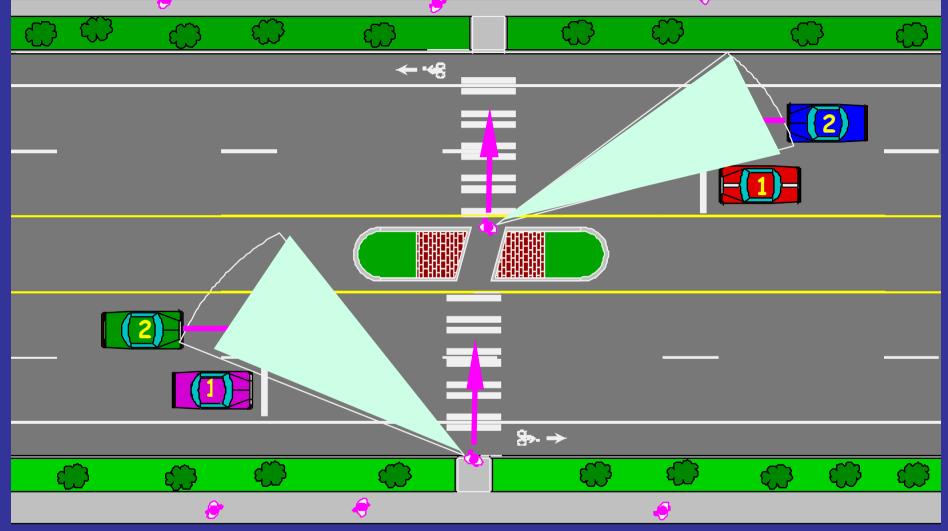


#### Advance Stop Bar - helps prevent Multiple Threat crash



Problem: Car 1 stops to let pedestrian cross; car 1 masks car 2, which doesn't stop, hits pedestrian at high speed.

### Advance Stop Bar - helps prevent Multiple Threat crash



Solution: place advance stop bar, so car 1 stops further back; car 1 no longer masks car 2, which can be seen by pedestrian.



Objective 3 - Reduce Pedestrian Exposure to Vehicular Traffic

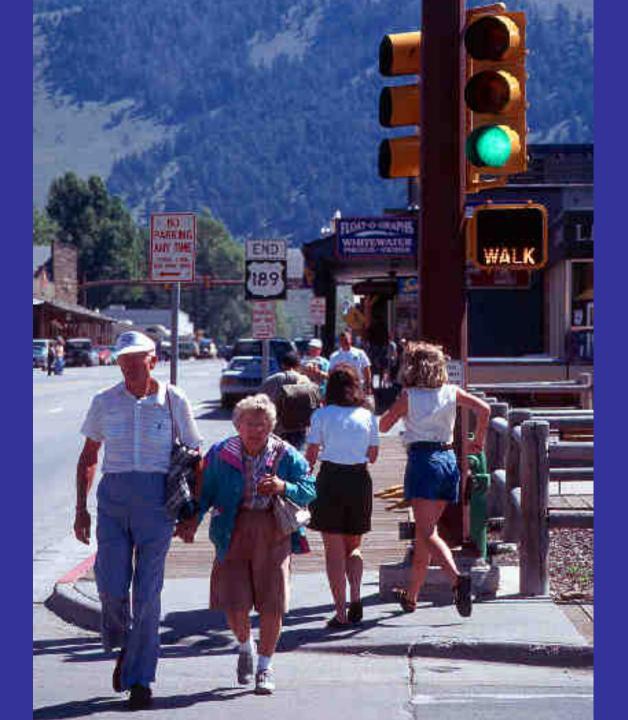
- Provide Vehicle Restriction/Diversion Measures
- Construct Pedestrian Refuge Islands & Raised Medians
- Finstall or Upgrade Traffic & Pedestrian Signals
- >Provide Sidewalk/Walkways & Curb Ramps
- Finstall Overpass/Underpass





Objective: Design Safer Intersections

- Provide Traffic signal options
- >Test innovative signal strategies





On some multi-lane roads, traffic and pedestrian signals are needed to better accommodate ped. crossings

# Pedestrian countdown signal





New animated eyes feature







"I tell you, Ed, this new technology is starting to really spook me out."

#### Pedestrian Strategies

Objective: Separate pedestrians from motor vehicle traffic

- Provide well-designed sidewalks and walkways
- Provide grade separation









#### Pedestrian Strategies

Objective 4 - Improve Pedestrian and Motorist Safety Awareness and Behavior

- Provide Education, Outreach, and Training
- Fimplement Enforcement Campaigns





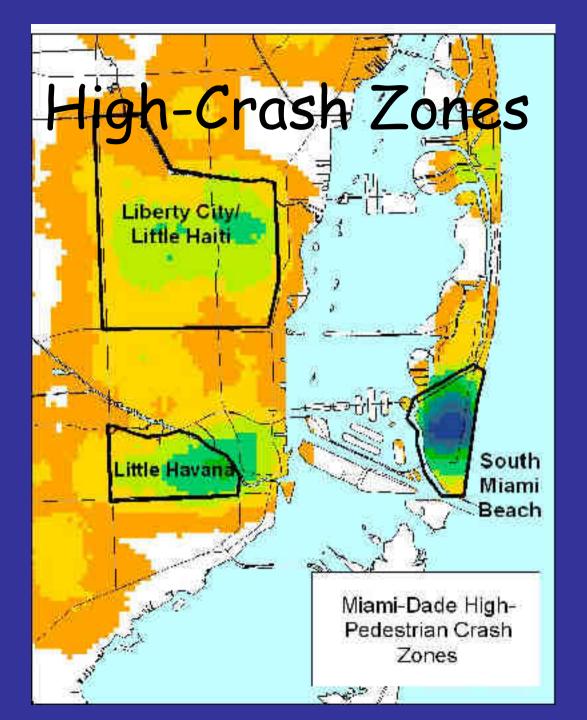
### Examples from across the Some positive State

measures for pedestrian safety:

- Hendersonville Main
   Street Redesign
- Asheville Wall
   Street Redesign
- Charlotte pedestrian treatments and new facility guidelines
- Wilmington Front St.

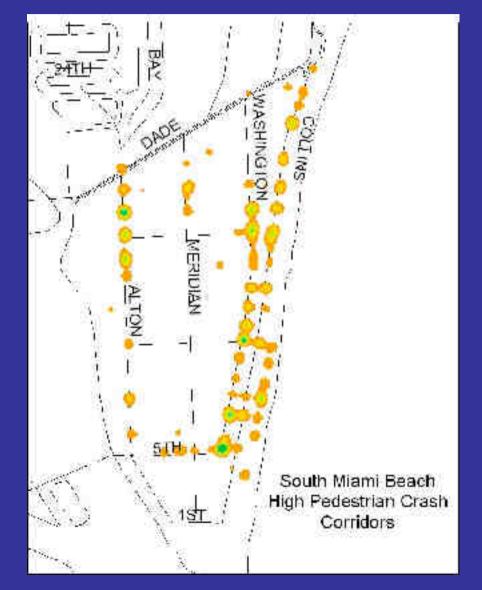


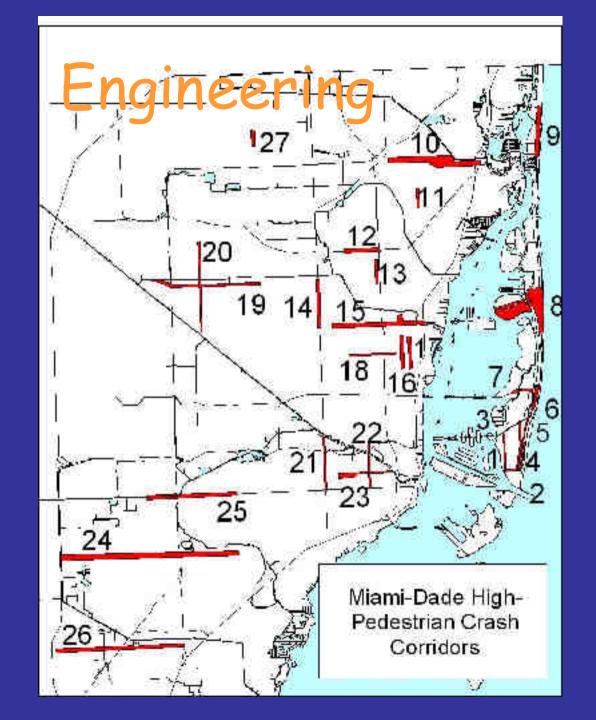
Wall Street, Asheville, NC



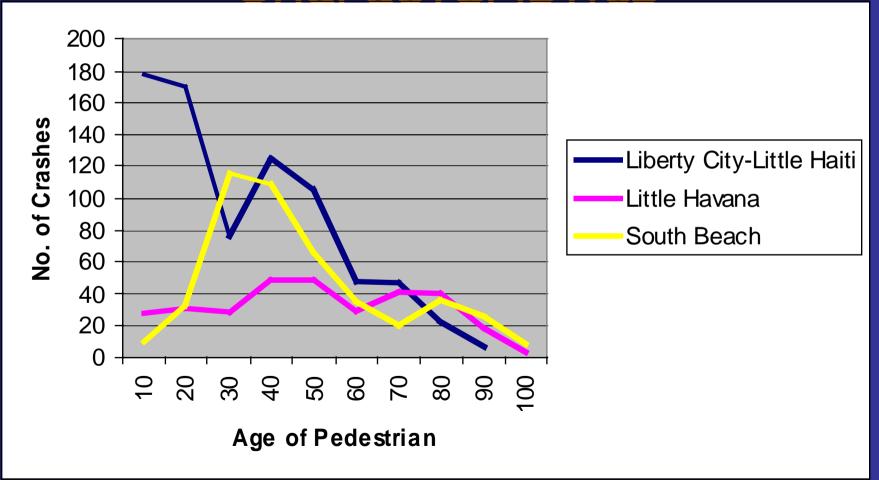
#### Engineering



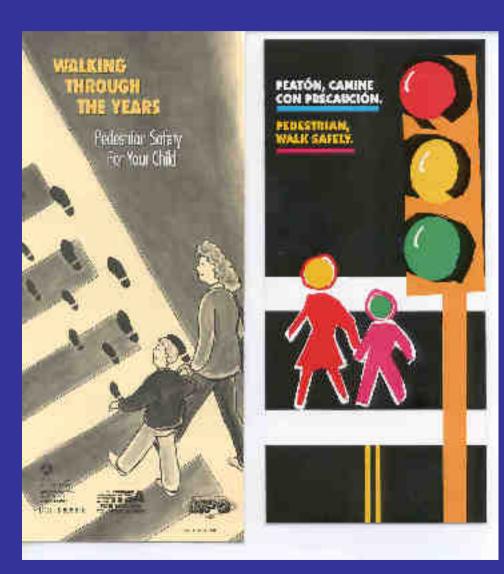




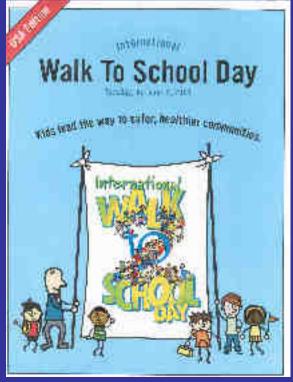
#### High-Crash Zone Characteristics



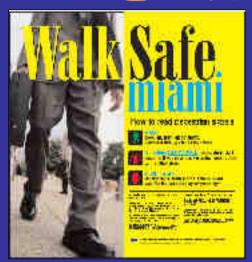
#### Education: Children

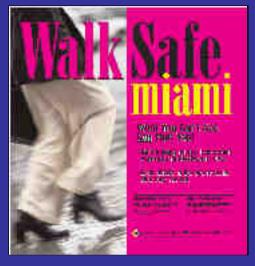




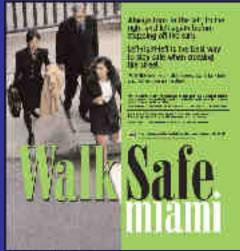


#### Education: Transit Riders

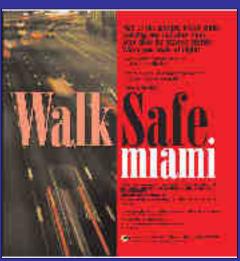




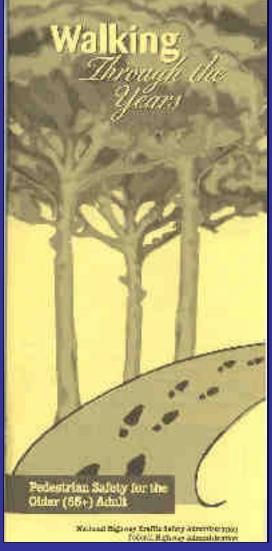


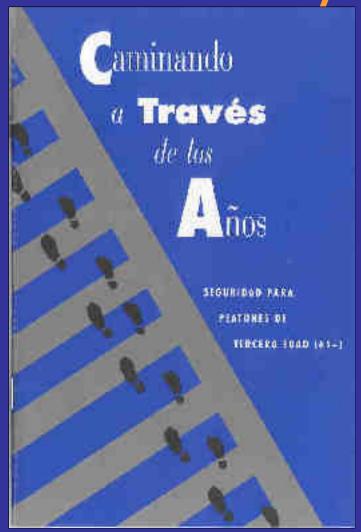






Education: The Elderly





#### Enforcement







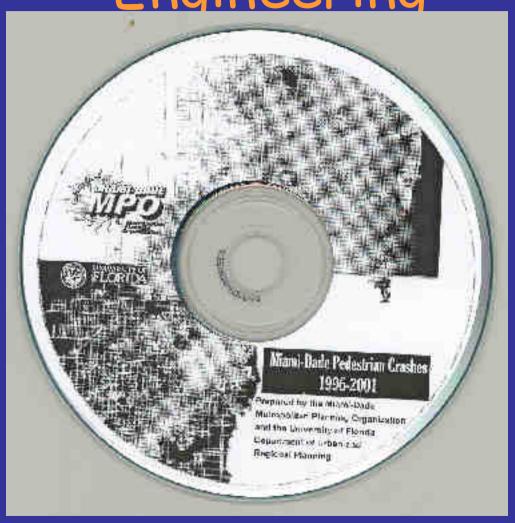


### Engineering





Engineering



## Results: Pedestrian Fatalities and Injuries

